UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

5514 7590 66/11/2009 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/564,632	06/26/2006	Ljubomir Josifovski	01263.107359.	2067	
THE CHINVENTION I ATTICE MATCHING					

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/11/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE: shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further c indicated unless correcte	form should be used f correspondence including d below or directed oth	or transmitting the ISS ng the Patent, advance nerwise in Block 1, by	SUE FEE and PUBLICAT. orders and notification of r (a) specifying a new corre	ION FEE (if requi maintenance fees w spondence address;	red). B ill be r and/or	locks 1 through 5 sh nailed to the current (b) indicating a sepa	nould be completed where correspondence address as rate "FEE ADDRESS" for	
maintenance fee notifications.  CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
FITZPATRICK	7590 06/11 CELLA HARPE			Cont	ificata	of Moiling or Tropes	mission	
30 ROCKEFELL NEW YORK, N			add tran	es Postal Service w ressed to the Mail smitted to the USP	Stop I FO (571	SSUE FEE address () 273-2885, on the da	deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.	
							(Depositor's name)	
			<u> </u>				(Signature)	
							(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.	
10/564,632	06/26/2006		Ljubomir Josifovski		0	1263.107359.	2067	
TITLE OF INVENTION:	LATTICE MATCHING	3						
			T	I			T	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE		TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1510	\$300	\$0		\$1810	09/11/2009	
EXAMI	INER	ART UNIT	CLASS-SUBCLASS	J				
BROWN JR, NATHAN H 2129 706-029000								
<ol> <li>Change of corresponde CFR 1.363).</li> </ol>	nce address or indication	n of "Fee Address" (37	2. For printing on the p			ī		
	ondence address (or Cha	nge of Correspondence	or agents OR, alternatively,					
Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to					
PTO/SB/47; Rev 03-03 Number is required.	2 or more recent) attach	ed. Use of a Customer	2 registered patent atto listed, no name will be	meys or agents. If a printed.	io nami	e is 3		
3. ASSIGNEE NAME AN	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or ty	ne)				
PLEASE NOTE: Unic	ess an assignee is identi	ified below, no assigne	e data will appear on the p OT a substitute for filing an	atent. If an assigne	e is id	entified below, the de	ocument has been filed for	
(A) NAME OF ASSIG		netion of this form is iv	(B) RESIDENCE: (CITY					
			_	_			_	
Please check the appropri	ate assignee category or	categories (will not be	printed on the patent):	Individual U Co	rporatio	on or other private gro	up entity 🗖 Government	
4a. The following fee(s) a	re submitted:		4b. Payment of Fee(s): (Plea	ise first reapply an	y previ	iously paid issue fee	shown above)	
Issue Fee		itt fb	A check is enclosed.	-1 F PTO 2029		ala d		
Publication Fee (No small entity discount permitted)  Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any					
5 OL 1 T 11 OL			overpayment, to Depo	sit Account Numbe	r	(enclose a	n extra copy of this form).	
<ol> <li>Change in Entity Stat</li> <li>Applicant claims</li> </ol>	us (from status indicated SMALL ENTITY statu		☐ b. Applicant is no lon	ger claiming SMAI	LENT	TTY status. Sec 37 CI	R 1.27(g)(2).	
NOTE: The Issue Fee and interest as shown by the re	l Publication Fee (if requecords of the United Sta	uired) will not be accept tes Patent and Tradema	ted from anyone other than t rk Office.					
Authorized Signature				Date				
Typed or printed name				Registration N				
This collection of informa an application. Confidenti submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi Alexandria, Virginia 2231	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this but irginia 22313-1450. DC (3-1450.	EFR 1.311. The informat U.S.C. 122 and 37 CFI USPTO. Time will var den, should be sent to O NOT SEND FEES OF	tion is required to obtain or r R 1.14. This collection is est ry depending upon the indiv the Chief Information Office R COMPLETED FORMS To	retain a benefit by the timated to take 12 n ridual case. Any co- er, U.S. Patent and O THIS ADDRESS	ne publi ninutes mments Fradem . SENI	c which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Depa TO: Commissioner i	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450,	

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



### UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 06/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,632 06/26/2006		Ljubomir Josifovski	01263.107359.	2067
5514 75	EXAM	EXAMINER		
FITZPATRICK (	CELLA HARPER &	BROWN JR, NATHAN H		
30 ROCKEFELLE		ART UNIT	PAPER NUMBER	
NEW YORK, NY	10112	2120		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 374 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 374 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

#### Application No. Applicant(s) 10/564 632 JOSIFOVSKI, LJUBOMIR Notice of Allowability Examiner Art Unit NATHAN H BROWN JR 2129 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to the communication of March 22, 2009. 2. X The allowed claim(s) is/are 4-7, 10-14, 20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62 (renumbered as 1-30). 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) Some\* c) None of the: a) 🛛 All 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. T Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other .

/Nathan H. Brown, Jr./ Examiner, Art Unit 2129 Application/Control Number: 10/564,632 Art Unit: 2129

# Allowable Subject Matter

- The following is an examiner's statement of reasons 1. for allowance: claims 4-7, 10-14, 20-23, 26, 27, 36-39, 42-46, 52-55, 58, 59, and 62 (renumbered as 1-30) are considered allowable since when reading the claims in light of the specification, as per MPEP \$2111.01 or Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims, specifically when propagating a path from a source node in said first lattice to a destination node in said first lattice, said comparing step updates and propagates accumulative values stored in the storage areas associated with the source node to at least the storage areas associated with the destination node as disclosed in independent claims 4, 20, 36, and 52 of the instant application (as defined at pg. 22 of the specification of the instant application).
- 2. A practical application for the invention is disclosed on page 1: "spoken document retrieval systems which allow users to locate and retrieve the desired information from

Application/Control Number: 10/564,632 Art Unit: 2129

the database using a spoken query."

3. The claimed computer readable medium has been interpreted as being the tangible computer memory of the workstation (as disclosed at p. 7, line 2).

The Prior art of reference Wang, "Mandarin spoken document retrieval based on syllable lattice matching", 2000 discloses a lattice comparison method comprising: receiving first and second lattices of labels to be compared, each lattice defining alternative label sequences that represent a sequential signal and each lattice comprising a plurality of nodes each associated with one or more labels and representing a point in the sequential signal at which the associated label occurs and comparing the first lattice with the second lattice by propagating a plurality of paths, each path representing a comparison between labels in the first lattice and labels in the second lattice, and each path having an associated accumulative value representing the closeness of the comparison; wherein during the path propagation, said comparing step defines, for each node in the first lattice, a plurality of associated storage areas, each storage area

Application/Control Number: 10/564,632

Art Unit: 2129

associated with a first lattice node also being associated with a respective node in the second lattice and being operable to store, during the path propagation, an accumulative value representing the closeness of the comparison between labels in the first lattice up to the associated first lattice node and labels in the second lattice up to the associated second lattice up to the associated second lattice node.

Tsuruta does not teach when propagating a path from a source node in said first lattice to a destination node in said first lattice, said comparing step updates and propagates accumulative values stored in the storage areas associated with the source node to at least the storage areas associated with the destination node.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

/Nathan H. Brown, Jr./

Examiner, Art Unit 2129

/David R Vincent/

Supervisory Patent Examiner, Art Unit 2129

Application/Control Number: 10/564,632 Page 5

Art Unit: 2129